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Ivo Tralić

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Mentor: dr. sc. Mateusz-Milan Stanojević, doc.

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UNIVERSITY OF ZAGREB

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Department of English

Ivo Tralić

Semantic and Syntactic Analysis of Emotion Words in English

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Advisor: Assistant Professor Mateusz-Milan Stanojević

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Povjerenstvo: Committee in charge:

dr. sc. Višnja Josipović Smojver, red prof.   Professor Višnja Josipović Smojver, Chair
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dr. sc. Mateusz-Milan Stanojević, doc.   AssistantProfessor Mateusz-Milan Stanojević

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ABSTRACT

2. INTRODUCTION

The idea that conceptual representations of our experiences can be construed in a unique way with the use of language is central to cognitive grammar. The main reason for the mechanisms of construal to occur is both the conscious and the unconscious tendency of the speaker to use language as a conduit for expressing thoughts, whether to simply organize these thoughts, communicate information or for any other function of language. (Evans, 2007, 41). This means that a speaker's choice of words, the way they combine into phrases, clauses and sentences, and finally, all the other linguistic and paralinguistic choices that are employed while producing the utterance are all influenced by the speaker's encyclopaedic knowledge, emotional state, intention and subconscious factors. At the same time, all these also influence the way that the hearer will decode the message and derive meaning from it. While this might at first hint at a state of chaos within which different speakers and hearers all have significantly different ways of understanding a message, it is certainly not the case. Speakers of the same language are easily able to convey messages to each other without a significant loss of meaning, and the fact that both the grammar and the vocabulary of a language are internally consistent from speaker to speaker means that the conventionalization of forms is an intuitive aspect of linguistic behavior. This internal consistency is solid ground for the claim that, therefore, conceptualization and construal must also be somehow conventionalized to an extent. This claim can, of course, be tested by meticulous analysis and subsequent attempts to describe a cognitive grammar of a language, for example Radden and Dirven's*Cognitive English Grammar* (Radden and Dirven, 2007), which applies the often highly theoretical or possibly anecdotal findings of cognitive linguistics to living linguistic matter and tries to unveil a structure deeper than grammar – the structure of how linguistic and potentially linguistic information is stored, organized and processed in the mind of a speaker. However, such extensive work is still not sufficient to produce an exhaustive description of every possible linguistic situation or the minutiae of the processes of conceptualization and construal accompanying single, specific, semantic domains.We postulate that, were it possible to have such detailed bottom up descriptions for a large number of different semantic domains, it would likely be easier to reach more satisfying and more accurate general conclusions about a language's cognitive grammar.

That is exactly what this paper aims to contribute to. By selecting a small subset of the vocabulary of English and applying certain methods of analysis to this subset, it should be possible to arrive at some conclusions concerning the cognitive makeup of that subset within a (cognitive) linguistic system. We can see this method at work in a paper by Stanojević, Tralić and Ljubičić (2012), wherein the authors have chosen a subset of vocabulary - "anger" and anger-related nouns, and analyzed their immediate semantic neighborhood, folk models and conceptual characteristics to get a basic feeling of how this subset is conceptualized. Afterwards, several syntactic constructions within which the chosen vocabulary may occur in language use were picked (with their conceptual characteristics in mind), and the combinations of the chosen vocabulary and these constructions were then searched for in a corpus. The resulting numerical data showed that the conceptual characteristics of a grammatical form and the conceptual characteristics of a lexical form influence each other in language use, by determining which may co-occur with which.

In this paper, we choose to focus on the semantic domain of emotion nouns in American English, for three reasons. First, emotion nouns are an interesting subject to think and talk about from a cognitive linguistic perspective. They refer to abstract states of mind (and body). These states they refer to are universal to all humankind, but are conceptualized differently from culture to culture. Actual emotions do not only trigger thoughts, but also physical reactions. And, finally, since they are so abstract, the only way to speak of emotions is by using a great number of metaphors or metonymies. This helps a lot in the context of cognitive linguistics, since the processes of metaphor and metonymy can be backtracked, and the path they trace may clearly reveal the path a mind takes when conceptualizing emotional states. Second, the cognitive linguistic aspects of emotions words have already been tackled by a number of known authors. In particular, we refer to Dziwirek and Lewandowska-Tomaszczyk (2010), Glynn (2002), Gordon and Hobbs (2008), and Kövecses (2003).Third, emotion words are relatively frequent in American English, meaning there are other parts of language that frequently accompany them in usage, such as syntactic constructions – two of which we chose to focus on.

After the corpus research had been done, the data was systematized according to ad hoc, yet relevant, criteria into semantic subcategories from which detailed information about the constructions could be derived. At this point, the findings from the data could be compared to those of Dziwirek and Lewandowska-Tomaszczyk, Glynn, Gordon and Hobbs, and Kövecses. Furthermore, some of our own conclusions could be drawn both from the data

and the comparison, which provide further insight into the nature of cognitive grammar of emotion nouns in English, and possibly ask new questions to be answered by cognitive linguistics.

The paper itself is composed as follows: section 2 introduces the theoretical framework needed to understand our aims and methods, as well as a description and arguments for the method of research. Section 4 contains the data from the corpus research organized into tables. Section 5 comments on the results in the tables from the perspective of our theoretical framework, and section 6 wraps up the paper with a conclusion.

2. THEORETICAL FRAMEWORK AND METHODOLOGY

In this paper, we rely on the existing theoretical framework of cognitive linguistics concerning the processes of production of meaning and the way the mind stores lexical information.Specifically, we feel that the definitions of the processes of conceptualization and construal as defined by the Glossary (Evans, 2007), Langacker (2008) and Tuđman-Vuković (Tuđman Vuković, 2009) properly capture both the moment of real-world information entering a linguistic system, and the moment when this refined information is again manipulated to make it suitable for leaving the speaker's mind. The definitions are as follows:

> **conceptualization**"The process of meaning construction to which language contributes. It does so by providing access to rich encyclopaedic knowledge and by prompting for complex processes of conceptual integration. Conceptualization relates to the nature of dynamic thought to which language can contribute. From the perspective of cognitive linguistics, linguistic units such as words do not 'carry' meaning(s), but contribute to the process of meaning construction which takes place at the conceptual level." (Evans, 2007)

> "In the first place, meaning is not identified with concepts but with **conceptualization**, the term being chosen precisely to highlight its dynamic nature. Conceptualization is broadly defined to encompass any facet of mental experience. It is understood as (1) subsuming both novel and established conceptions; (2) not just "intellectual" notions, but sensory, motor, and emotive experience as well; (3) apprehension of the physical,

linguistic, social, and cultural context; and (4) conceptions that develop and unfold through processing time (rather than being simultaneously manifested). So, even if "concepts" are taken as being static, conceptualization is not." (Langacker, 2008)

construal"An idea central to Cognitive Grammar. Relates to the way a language user chooses to 'package' and 'present' a conceptual representation as encoded in language, which in turn has consequences for the conceptual representation that the utterance evokes in the mind of the hearer. This is achieved by choosing a particular focal adjustment and thus linguistically 'organising' a scene in a specific way. In so doing, the speaker imposes a unique construal upon that scene." (Evans, 2007)

"As part of its conventional semantic value, every symbolic structure **construes** its content in a certain fashion. (…) In viewing a scene, what we actually see depends on how close we examine it, what we choose to look at, which elements we pay most attention to, and where we view it from." (Langacker, 2008)

"A key connection between conceptual and semantic structures are the mechanisms of **construal**, cognitive mechanisms which shape non-linguistic conceptual content into linguistic structures, and from which semantic structures, i.e. meaning, emerges." (Tuđman-Vuković, 2009)

A relevant example of different ways of construing are the two constructions we will be looking into: "to be" + participle + "by" OR "with" + emotion noun. Even though they, at first glance, seem similar, the construction using "by" will necessarily be a passive construction in which the emotion is the semantic subject of the action, while "with" will imply instrumentality, and will place the emotion further away from the verb – further than the subject, but also further than an object, since the action is not transitive toward the emotion.

Furthermore, the **theory of conceptual metaphors**, which defines metaphor as a conceptual mechanism used for conceptualizing a concept via another, more concrete or more highly structured concept (Lakoff, 1993), is central to the way data in the paper is analyzed and interpreted, since the concept of emotional states is highly abstract, meaning that a language will produce a highly figurative semantic domain around the concept.

The literature used by this paper that focuses narrowly on the subject of the paper consists of several articles and books all dealing with cognitive semantics of emotion nouns in

English. Kövecses (2003) establishes that emotions in English have a common master metaphor used to conceptualize them – EMOTIONS ARE FORCES. He also says that the conceptualization of emotion in English can easily be interpreted using Talmy's **theory of force dynamics**, which in turn, when applied to emotions, reveals that while the master metaphor EMOTIONS ARE FORCES may not be obvious in every instance of language used to talk about emotions, it actually metonymically provides submetaphors of itself, which then allow for more linguistic variety and seemingly different conceptualizations of emotional states. To be exact, he realizes that to feel an emotion, the emotion must be triggered by a cause, may be actually blocked by the rational mind, and, if it is not blocked, will have some kind of an effect on the experiencer of the emotion, whether physical or mental. This interplay of cause, emotion, and experiencer is easily translated into a force-dynamics situation. Then, Kövecses notices that these phases of being affected by an emotion are what allow metonymy (pertaining to a single phase being part of the entire process of an emotion behaving as a force) in conceptualizing the examples from English where the master metaphor is not obvious. For example, while "overtaken by anger" is clearly a situation involving opposed forces (the person's resistance to being affected by anger as opposed to the consuming emotion), "steaming with anger" represents a different relation between concepts. However, "steaming" is a metaphorical expression for a person feeling hot, and feeling hot is an actual consequence of being affected by anger, i.e., the last part of the force-dynamics schema of the EMOTIONS ARE FORCES master metaphor. Therefore, the master metaphor is still here, even though not immediately noticeable. However, which part of such a schema will be singled out and chosen as the vessel for conceptualization depends on extralinguistic factors, such as cultural preferences. Or, as Kövecses puts it in his own words:

> "The major claim I am making here is this: Systematic links take us from (possibly universal) actual physiology of anger through conceptualized metonymy and metaphor to cultural models. In the process, the broader cultural contexts also play a crucial role, in that they fill out the details left open in the schematic basic structure. In other words, I believe that we can offer a satisfactory explanation of the emergence of cultural models of emotions if we take into account the possibly universal experiential basis of our emotion concepts, the conceptualization of this experiential basis by means of conceptual metonymies, the conceptual metaphors that often derive from these metonymies, and the broader cultural context."

It should be pointed out that more recent research (e.g. Stanojević, Tralić, Ljubičić, 2012), however, points to conceptual characteristics of grammatical forms which are used during construal having an impact on the final cultural models of concepts as well.

Gordon and Hobbs (Gordon and Hobbs, 2008) take a look at the entire set of words denoting emotional states in English. They make a claim that there are thirty-three basic sets of emotion nouns in English, mostly non-polysemic (p4, 2008), and indicate that there are more terms for emotions in English than there would be basic predicates for emotion in cognitive theory, meaning that experiential "primitives", or basic physically-based non-abstract concepts (such as the concept of having a certain physical sensation while feeling an emotion) act as building blocks which may combine into more complex concepts. However, the most interesting point they make is in the conclusion:

> "Natural language understanding requires a large knowledge base of commonsense knowledge that explicates concepts in coherent theories and links lexical items with these theories. In order to achieve high accuracy, high complexity results, this effort must be manual (as indeed dictionaries are constructed manually). Early efforts will have the most impact if done for the most central concepts and the most common word senses."

While what they say here does not (on its own) add to our understanding of the processes of conceptualization and construal accompanying the use of emotion nouns in English, it does agree with the method of research of this paper – namely, the attempt to focus on a single semantic domain in order to create an exhaustive description of it.

The work of Dziwirek-Tomaszczyk and Lewandowska (2010) *Complex Emotions and Grammatical Mismatches: A Contrastive Corpus-based Study*shares the aim and focus of this paper to an extent. The authors study verbs, adjectives and nouns denoting emotions in English and Polish in order to find the similarities and differences in their conceptualization and means of construal. However, nouns seem to be the least covered, except in one short chapter dedicated to them. The authors explain that this is due toemotion nouns being very rarely used as a direct object of a verb in English (p 103, 2010), and therefore not providing a rich source of information on how emotional states behave cognitively in the language. While this might be true, it strikes as somewhat baffling that the only two questions that the authors raise about emotion nouns are:

"The initial question we want to pose is what do we *do* with emotions? Specifically, what do we do with emotion nouns?", and "Which emotion nouns are selected by which verbs?"

While these are legitimate questions in the context of thinking about how these words behave in a language, it is unclear why the authors avoid emotion nouns with syntactic functions other than just 'direct object'. However, what their work does do is set up a conceptual representation of the mentioned emotional states. These representations match with Kövecses's claim that conceptualizing emotions in English rests upon a single master metaphor or metonymically derived parts of the master metaphor, providing plenty of secondary evidence for his claim.

The findings from our literature allow us to complete a set of parameters according to which this paper will proceed. Namely:

- there mightexist a master metaphor for talking and thinking about emotional states in English

- a structural part of this master metaphor may be isolated to allow the production of other metaphorical expressions – however, as these expressions are still derived from the master metaphor, the system remains "closed"

- studying very specific linguistic manifestations of a concept may still provide insight into the inner working of the concept, but also into other aspects of a language, provided that a sufficient number of similar studies are performed upon these aspect as well

- emotion nouns rarely take on the function of the direct object in English

The first two provide a firm ground from which to start the analysis, while the second two affect the way this paper chooses the subject of its research. That is, we decided to look at emotion nouns in a very specific syntactic context (we will be using the Corpus of Contemporary American English, from hereafter COCA), since this will allow for more accuracy in our findings, will put the emotion nouns in a conceptual content that will say something about the conceptual makeup of emotion nouns, but also, to avoid studying emotion nouns while functioning as direct objects in English, as this would both cause an overlap with Dziwirek and Lewandowska's work and significantly reduce the amount of data

a corpus search would provide. Therefore, the following two syntactic constructions were chosen, in which emotion nouns will be searched for and analyzed. These are:

a) *"to be"* + *full verb past participle* + *"by"* + *emotion noun*;

   (corpus example: "Whether that affection **is** real or **driven by fear** is hard to tell.")

b) *"to be"* + *"full verb past participle"* + *"with"* + *emotion noun*

   (corpus example: "He **was filledwithanger** and sorrow.")

Or, to define these within morphosyntax: prepositional phrases in postmodification of an adjectival or participial copular argument. Both constructions are passive constructions with the agent not omitted.So, if emotion nouns are looked at within these environments, the following may be presupposed:

- Due to the prepositions controlling the noun, the noun will act either as the agent of the action, or the instrument of the action

- The participles and adjectives will provide information on what emotions themselves "do" (as opposed to only asking what can be done with them in Dziwirek and Lewandowska) and what kinds of effects they can have on the experiencer

- Making the consequence or effect of an emotion the focus means we also focus on the last part of the structure of the master metaphor for emotions.

Of course, these predictions need not prove true. It is very likely that the corpus will provide examples which clash with these predictions, especially the first and the third one. With this in mind, we move on to the actual research.

3. RESEARCH AND DATA

For the actual nouns denoting emotions, the following were chosen: awe, desire, fear, hate, jealousy, joy, love, worry. The original idea was to try and build a list of "basic" emotions, since having such a list would probably help in reaching conclusions about our data. However, after researching the Internet for such a list or any firm scientific guidelines to build it from scratch, this idea was discarded. Unfortunately, contemporary psychology and cognitive sciences are at a loss while trying to define what makes an emotion "basic", how to categorize them, or even how to define some of the emotions in a consistent way across various theoretical frameworks. The variety of tables trying to categorize emotions did often have something in common, however. They depict all emotions as having a tendency to assert an effect upon the possibly unwilling experiencer, which confirms Kövecses's link to Talmy's force dynamics, and shows that emotions are often conceptualized as agents of an action performed upon a patient. Ultimately, we chose four emotion words that have already been researched in ways related to our methodology, and four other unresearched ones. All eight "feel" basic, and can be found listed as such across the aforementioned variety of emotion categorization tables online. Here is a short overview:

Desire – MacMillan defines desire as "a strong feeling of wanting to have or to do something". It is tackled from a linguistic perspective in Alice Deignan's article (2001). Therein, desire is said to be associated with fire-related metaphors (2001, 24), conceptualized as a being or entity separate to its experiencer (2001, 25) and an unwelcome force that, to the experiencer, represents an opponent to struggle against (2001, 25). The article also makes an interesting, more generalized conclusion about the nature of conceptualization of stronger emotions:

"An examination of several groups of metaphors suggests that we fear desire, possibly for its potential to disrupt the established patterns of our lives; desire is talked of metaphorically as a wild animal, and as the dangerous and elemental forces of water, fire and electricity. Another entailment of these metaphors, and a general tendency in the discussion of powerful emotions, is a denial that desire is a part of ourselves; we project it linguistically onto objects or forces outside ourselves. Thus desire appears uninvited and takes us over; we are not responsible. This both reflects our physical perception of

desire and allows us to disclaim responsibility for 'sinful' desire."

Fear– In MacMillan, fear is "the feeling that you have when you are frightened", which does not help much. In Kövecses (1990), fear is "often defined as a dangerous situation accompanied by a set of physiological and behavioral reactions that typically ends in flight" (1990, 69).This definition matches the way Kövecses later analyzes an emotion event (cause of emotion > experiencer feels emotion > emotion has further consequences on the experiencer). He also notices that a way to conceptualize fear is via its causes by focusing on the first part of the emotion event schema (1990, 76).

Joy–MacMillan's joy is "a feeling of great happiness". We also find joy in Stefanowitsch's article (Stefanowitsch, 2004), but the article focuses on methodology rather than actual research. Still, he does confirm the definition from MacMillan (Stefanowitsch, 2004, 139-140).

Love – Love as defined by MacMillan is "a very strong emotional and sexual feeling for someone". Furthermore, Stanojević (Stanojević, 2013) provides an overview of the ways love can be conceptualized in English. In short, love can be a bounded object, a valuable resource, a relationship between two people, or an external force which forces a person to act in a specific way (2013, 180).

For the remaining four, we will simply provide a definition from MacMillan:

Awe– "a feeling of great respect and admiration, often combined with fear"

Hate – "to dislike someone or something very much"

Jealousy–"an unhappy feeling because someone has something that you would like or can do something that you would like to do"

Worry – "the feeling of being worried", but since it is circular, here is the definition of the verb as well: "to feel nervous and upset because you keep thinking about a problem that you have or could have in the future"

However, before the main research, a larger list of emotion nouns was chosen in order to be checked for frequency in the corpus along with their adjectival pairs (e.g. happiness – happy). This would try to explain Dziwirek and Lewandowska's tendency to avoid nouns for emotional states in their research and instead focus on adjectives.The table shows that the

Emotion Noun/Emotion Adjective	Frequency (N)	Frequency (Adj)	Noun or Adjective Ahead?
happiness / happy	8177	55810	Adj
joy / joyous or *joyful*	15027	1131 or 1361	N
pleasure / pleased	19306	11811	N
depression / deppresed	19367	6771	N
grief / grieving	7576	1949	N
distress / distressed	5748	1865	N
sadness / sad	4734	17674	Adj
misery / miserable	3678	4333	Adj
sorrow / sorrowful	3146	418	N
unhappiness / unhappy	1011	5824	Adj
anger / angry	19208	24037	Adj
fear / afraid	49410	31099	N

most frequent forms are the shorter, or underived ones, by a long margin. These are the ones that are the best to start from when performing this kind of research, as a more frequent form will occur in more different linguistic contexts, allowing for more evidence and a more precise analysis of the nature of their conceptualization.

The next step was to perform the actual corpus research. Each particular emotion noun was searched paired with both prepositions, and alongside collocating past participial forms within 4 spaces in front of the preposition.The minimum frequency was set to 0, and the results were ordered by frequency. This means that both conventional expressions and potentially novel or unique combinations would come up. After a long list of collocating participles (along with their frequencies) that govern the prepositional phrase was acquired, the meanings of the verbs that the participles have been derived from were observed online in

MacMillan Dictionary and Thesaurus, checked for metaphoricity using the Pragglejazz procedure (Pragglejazz 2007), and two tables were made categorizing the participles according to most apparent semantic distinctions and similarities between them. These are the resulting tables:

PARTICIPLE + BY		
Attacked	**FRQ**	**With Emotions**
Hit	1	Awe
Pierced	1	Desire
Pricked	1	Jealousy
Struck	1	Joy
Emotional Pressure	**FRQ**	
Tortured	2	Jealousy, worry
Tormented	1	Desire
Haunted	1	Worry
Controlled	**FRQ**	
Ruled	14	Desire, fear, worry
Overcome	11	Desire, fear, joy, worry
Seized	6	Jealousy, joy
Overwhelmed	6	Desire, fear
Overtaken	3	Fear
Possessed	1	Desire
Owned	1	Joy
Enslaved	1	Desire
Seduced	1	Joy
Governed	1	Joy
Eaten	**FRQ**	
Consumed	6	Hate, worry
Devoured	1	Jealousy
Motivation	**FRQ**	

Motivated	54	Desire, fear, hate, jealousy, love
Driven	54	Desire, fear, hate, jealousy, love, worry
Inspired	13	Fear, love
Moved	6	Desire, jealousy, love
Prompted	4	Fear, worry
Guided	3	Love
Animated	2	Love
Fueled	1	Jealousy
Powered	1	Joy
Spurred	1	Desire
Stoked	1	Jealousy
Physically altered	**FRQ**	
Torn	2	Hate, jealousy
Transformed	2	Desire, joy
Broken	1	Hate
Destroyed	1	Jealousy
Twisted	1	Hate
Carved	1	Hate
Tempered	1	Worry
Strengthened	1	Hate
Colored	1	Jealousy
Frayed	1	Worry
Lit	1	Joy

Physically Inhibited	FRQ	
Paralyzed	21	Awe, fear, worry
Gripped	17	Fear
Blinded	12	Hate, love
Bound	6	Love
Frozen	5	Fear
Immobilized	4	Fear
Inhibited	3	Fear
Burdened	2	Desire
Crippled	1	Jealousy
Besieged	1	Hate
Tethered	1	Awe
Emotion causing emotion	FRQ	
Frightened	1	Desire

PARTICIPLE + WITH		
Afflicted	**FRQ**	**With Emotions**
Drunk	5	Joy, love
Intoxicated	2	Love
Fevered	2	Love
Exhausted	2	Worry
Contaminated	1	Hate
Attacked	**FRQ**	
Struck	8	Awe, fear
Smitten	1	Jealousy
Destroyed	**FRQ**	
Consumed	29	Desire, fear, hate, jealousy, joy, love , worry
Absorbed	1	Desire
Filled or overflowing container	**FRQ**	
Filled	219	Awe, desire, fear. hate, jealousy, joy, love, worry
Overwhelmed	18	Desire, joy, love
Suffused	7	Awe
Swollen/swelled	2/4	Desire, love
Flushed	5	Jealousy, joy
Flooded	4	Fear, joy
Charged	2	Awe, hate
Deluged	2	Hate

Saturated	1	Desire
Inundated	1	Hate
Physically Altered	**FRQ**	
Creased	8	Worry
Contorted	8	Fear, worry
Etched	6	Worry
Ragged	2	Worry
Twisted	2	Hate
Wrinkled	2	Worry
Darkened	1	Hate
Strained	1	Worry
Riddled (negative conn)	1	Jealousy
Physically Altered using Instrument	**FRQ**	
Glazed	1	Love
Weighted	1	Awe
Emotion causing emotion	**FRQ**	
Wracked	3	Worry
Shaken	1	Awe

4. DISCUSSION

a) Table 2 – by + participle

The tables in section 3 show the arrangement of the results, that is, of the participial forms yielded from corpus searches, into categories defined by a common meaning derived from the basic meanings of category members. The adjacent column tells us the raw frequency in COCA, and the last column shows which emotions collocate with which participles. The data in the tables points to several conclusions concerning the nature of the prepositions "by" and "with", as well as the conceptualization of emotions and the experiencer of the emotion. First, in table 1, it appears that all the participles imply the emotion noun as an agent. The mental image is that of an outside force (i.e., the emotion) exerting an influence upon the experiencer and changing or afflicting it in some way, usually by changing some state of the experiencer's being, either mental or physical. The only slight deviation from this is the "Eaten" category, wherein the emotion is conceptualized as an actual living being with a (great) need to feed. Furthermore, the participle "frozen" in the "Physically Inhibited" category upgrades on the general notion of "outside force" to the specific "natural force" in examples such as "A New York cop, frozen by fear", wherein the verb denotes a natural process governed by physical laws. Apart from being more specific, both deviations are, however, consistent with the general force metaphor.

The emotion is conceptualized as an agent, and the experiencer is conceptualized as a patient of the transitive action performed by the agent. This is expected from the passive construction. Most of the categories seem to present the patient as a physical object subject to external manipulation and physical alteration. The categories labeled "Controlled", "Motivation", and "Emotion causing emotion", however, also require of the patient to be a living being capable of either conscious control of his actions and thought or feeling emotions. Furthermore, the experiencer in "Motivation" differs from all the others in that it does not seem to necessarily resist the influence of the emotion, but is simply in a state of inaction or inertia until pushed by the emotion.

Looking at the frequencies, it is noticeable that most participles are quite low-frequency. Even though one might expect that this would mean a lot of unique cases which could not be easily grouped with others, the semantic grouping into categories was actually very intuitive.

Most of the results with a single hit are just synonyms of others with equal or higher frequencies. Secondly, the categories with the highest overall frequencies are "Motivation" and "Physically Inhibited", with the number of results greatly outnumbering those in the other categories. What this implies is that this is the most usual way speakers of American English conceptualize emotions – as outside forces that either incite or impede action of the targets of their influence, i.e., forces that control our conscious selves and our behavior. Meanwhile, the conceptualization of emotions present in other categories seems not to be as salient in everyday language (due to observed frequencies), but still follows the main metaphorical principle of EMOTIONS ARE FORCES without much deviation.

So to conclude, it seems that the preposition "by" introduces the notion of agency when used with emotions. Even though MacMillan offers some definitions of "by" governing a noun as a semantic instrument, none of these seem to apply to the cases seen in this table.

b) Table 3 – with + participle

At first glance, this table shares many similarities with the previous one. Some of the categories are identical, some nearly identical and sharing the same results. However, upon inspection, the differences in conceptualization become apparent. First of all, emotion nouns act as semantic agents only in categories named "Physically Altered" and "Emotion causes emotion". The second category contains only one example, and the first 31. Their semantic behavior can be explained by definitions of "with" in MacMillan that allow the argument of "with" to act as an agent.Other categories, excluding "Filled or overflowing container", unfailingly conceptualize the emotion as an instrument which is used to perform some action or alteration upon the experiencer. Even the category "Destroyed", which seems very similar to the category "Eaten" in the previous table due to "consumed" being the most frequent result, cannot be interpreted in such a way that the emotion becomes the agent, due to the confines of "with" being used alongside the two verbs denoting some kind of eating. "Consumed by" and "consumed with" imply two different kinds of relationship between the arguments and their governing units. The second one might not even be instrumentality, but rather a kind of accompaniment or even modality –in the example "She was so consumed with lust that she didn't know what to say" the participle itself might be sufficient to describe the experiencer's state of mind independently of the emotion that caused it. So, the mind was consumed – which can metonymically mean "destroyed" or "snuffed out of existence", either by using lust as a catalyst (instrumentality), an ally helping to that end (accompaniment), or

by being lustful (modality). Looking at the etymology of "with", the intended meaning perhaps becomes a bit more apparent. Namely, the Online Etymology Dictionary mentions that, while the Old English wið meant „against" or „opposite", the sense shifted in Middle English "to denote association, combination, and union". This means that the contemporary "with" might also (like in our case with *lust*) denote a kind of relation where the related units are not conceptualized as apart from one another, but rather as functioning in union. Therefore, "a mind consumed with lust" might mean the mind and the emotion becoming one and the same.

> **Comment [U1]:** Fine, I understand.

The category with the highest overall frequency, however, is the "Filled or overflowing container", which exhibits a somewhat different behavior from the others. MacMillan offers the following definition of *with* (among many others): "used for saying what is in or on something, for example what fills or covers it". Conceptually, being filled with substance means that the substance is essentially in control of its container –meaning that this category follows the EMOTIONS ARE FORCES metaphoric principle as well.

Concerning the conceptualization of the experiencer, the categories "Afflicted" and "Emotion causing emotion" require the patient to be a living being with a physiology capable of being afflicted by poison, illness or exhaustion, or a living being capable of feeling emotions. Other categories conceptualize the experiencer as an object upon which a physical effect or alteration has been performed – and "Filled or overflowing container" adds to this that the object should be a container object. It should be noted that, as mentioned in earlier research (Stanojević, Tralić, Ljubičić, 2012, 144), it is more difficult tomake conclusions about the conceptualization of a second participant of a predicate, since it is conceptually "further" from the core of the construed concept than the first participant.

> **Comment [U2]:** this is a rather specific piece of information, therefore, you should add a page number.

Another thing to comment on is the distribution of emotions by which participles accompany which emotions (the third column). The numbers are too low to claim anything about specific emotions, but it is more than obvious that some particular verbs allow for most or all of the emotions. Namely, there are "motivated" and "driven" in the first table, suggesting that all of the emotions are often conceptualized as external driving forces, and "filled" and "consumed" in the second table, meaning that all of the emotions are capable of being conceptualized as both a liquid and a ravenous beast.

So, in conclusion, "with" is less straightforward in its construal of emotion nouns and their experiencers, being able to present the emotion both as an agent and an instrument in

different cases (depending on the action of the verb of the participle). The most salient mental image of this construal with speakers of American English, however, seems to be that of the emotion being a liquid capable of filling up the container that is the experiencer of the emotion.

5. CONCLUSION

Both of the constructions we focused on are passive, meaning that the emotion words will be a bit further from the focus of the emotion, but since they are not omitted and function as semantic subjects, a lot can be derived from their relationship with the verb that appears in the construction. We get a lot of different possible conceptualizations for each emotion in each construction, but they can be explained via Kővecses's EMOTIONS ARE FORCES metaphor. However, since we chose to observe the conceptualizations in only two possible syntactic contexts (unlike most of the authors from the literature we refer to), there is a smaller variety of possible conceptualizations and conceptual metaphors in the corpus results than there would be if we observed the emotion words in more such contexts (or all of them). This is due to the emotion words in our paper performing only two different semantic roles (agent and instrument), and their actions being necessarily transitive in relation to the experiencer, meaning that the verb accompanying them will be more informative about the relation between the emotion and its experiencer than about the more general conceptual makeup of the emotion word in our mind. However, such specific data may still be useful if this type of research is meticulously applied to all possible linguistic contexts within which a word (emotion word or any other) may appear, since we can expect that a general view can be built bottom-up, from numerous very specific analyses.

6. LITERATURE

Deignan, Alice. *Metaphors of Desire*. In *Language and Desire: Encoding sex, romance and intimacy*, ed. Keith Harvey and Celia Shalom. London: Routledge, 2003. Web.

Dirven, René and Günter, Radden. *Cognitive English Grammar*. Amsterdam/Philadelphia: John Benjamins Publishing Company, 2007. Print.

Dziwirek, Katarzyna and Lewandowska-Tomaszczyk, Barbara. *Complex Emotions and Grammatical Mismatches: A Contrastive Corpus-based Study*.Berlin: Walter de Gruyter GmbH & Co., 2010. Print.

Evans, Vyvyan. *A Glossary of Cognitive Linguistics*. Edinburgh: Edinburgh University Press, 2007. Print.

Glynn, Dylan. *Love and Anger. The Grammatical Structure of Conceptual Metaphors.* Style 36 (3): 541-559, 2002. Web.

Gordon, Andrew and Hobbs, Jerry. *Deep Lexical Semantics of Emotions*. Workshop on Sentiment Analysis : Emotion, Metaphor, Ontology and Terminology, 6th International Conference on Language Resources and Evaluation. Marrakech, 2008. Web.

Lakoff, George. *The contemporary theory of metaphor*. In Andrew Ortony (ed.) *Metaphor and Thought*. Cambridge: Cambridge University Press, 1993. Print.

Langacker, Ronald W. *Investigations in Cognitive Grammar*. Berlin: Walter de Gruyter GmbH & Co.,2009. Print.

Kövecses, Zoltán. *Metaphor and Emotion: Language, Culture, and Body in Human Feeling*. Cambridge: Cambridge University Press, 2003. Print.

Kövecses, Zoltán. *Emotion Concepts.* New York: Springer-Verlag New York Inc., 1990. Print.

Paradis, Carita. *Adjective and Boundedness*. Cognitive Linguistics 12-1: 47-65, 2001. Print.

Pragglejazz, Group. *MIP: A method for identifying metaphorically used words in discourse*. Metaphor and Symbol 22 (1): 1-39. 2007.

Stanojević, Mateusz-Milan; Tralić, Ivo; Ljubičić, Mateja. *Grammatical information and conceptual metaphors: The case of anger*. In Anita Peti-Stančić and Matesuz-Milan Stanojević (eds.), Language as Information (pp. 131-154). Frankfurt am Main: Peter Lang GmbH, 2014. Print.

Stefanowitsch, Anatol. *Happiness in English and German: A metaphorical-pattern analysis*. In M. Achard & S. Kemmer (Eds.), Language, Culture, and Mind (pp. 137–149). Stanford: Center for the Study of Language and Information, 2004. Web.

Tuđman Vuković, N. Značenje u kognitivnoj lingvistici. *Suvremena lingvistika*, *35*(67), 125–150. 2009. Print.